



\*\*FILE\*\*ID\*\*LIBCALLG

K 14

LL           IIIIII      BBBBBBBB      CCCCCCCC      AAAAAA      LL      LL      GGGGGGGG  
LL           IIIIII      BBBBBBBB      CCCCCCCC      AAAAAA      AA      LL      LL      GGGGGGGG  
LL           IIII      BB      BB      CC      AA      AA      LL      LL      GG  
LL           IIII      BB      BB      CC      AA      AA      LL      LL      GG  
LL           IIII      BB      BB      CC      AA      AA      LL      LL      GG  
LL           IIII      BB      BB      CC      AA      AA      LL      LL      GG  
LL           IIII      BB      BB      CC      AA      AA      LL      LL      GG  
LL           IIII      BB      BB      CC      AA      AA      LL      LL      GG  
LL           IIII      BB      BB      CC      AAAAAAA      LL      LL      GG      GGGGGG  
LL           IIII      BB      BB      CC      AAAAAAA      LL      LL      GG      GGGGGG  
LL           IIII      BB      BB      CC      AA      AA      LL      LL      GG      GG  
LL           IIII      BB      BB      CC      AA      AA      LL      LL      GG      GG  
LLLLLLLLLL    IIIIII      BBBBBBBB      CCCCCCCC      AA      AA      LLLLLLLLLL    LLLLLLLLLL    GGGGGG  
LLLLLLLLLL    IIIIII      BBBBBBBB      CCCCCCCC      AA      AA      LLLLLLLLLL    LLLLLLLLLL    GGGGGG  
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(2) 47 DECLARATIONS  
(3) 77 LIB\$CALLG - Execute CALLG instruction

0000 1 .TITLE LIB\$CALLG - Execute CALLG instruction  
0000 2 :IDENT /1-002/  
0000 3 ;  
0000 4 :\*\*\*\*\*  
0000 5 :\*\*\*\*\*  
0000 6 :\*  
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0000 27 :  
0000 28 :  
0000 29 :++  
0000 30 :FACILITY: General Utility Library  
0000 31 :  
0000 32 :ABSTRACT:  
0000 33 :  
0000 34 : This module contains LIB\$CALLG, which makes the VAX CALLG instruction  
0000 35 : available as a callable procedure.  
0000 36 :  
0000 37 :ENVIRONMENT: Runs at any access mode, AST Reentrant  
0000 38 :  
0000 39 :AUTHOR: Steven B. Lionel, CREATION DATE: 28-October-1981  
0000 40 :  
0000 41 :MODIFIED BY:  
0000 42 :  
0000 43 : 1-001 - Original. SBL 28-October-1981  
0000 44 : 1-002 - Inherit caller's FU, DV, IV PSW bits. SBL 9-Nov-1981  
0000 45 :--

0000 47 .SBTTL DECLARATIONS  
0000 48 :  
0000 49 : LIBRARY MACRO CALLS:  
0000 50 :  
0000 51 : \$PSLDEF ; Processor Status Longword definitions  
0000 52 : \$SFDEF ; Stack Frame definitions  
0000 53 :  
0000 54 : EXTERNAL DECLARATIONS:  
0000 55 :  
0000 56 : .DSABL GBL ; Force all external symbols to be declared  
0000 57 : NONE  
0000 58 :  
0000 59 : MACROS:  
0000 60 :  
0000 61 : NONE  
0000 62 :  
0000 63 : EQUATED SYMBOLS:  
0000 64 :  
0000 65 : NONE  
0000 66 :  
0000 67 : OWN STORAGE:  
0000 68 :  
0000 69 : NONE  
0000 70 :  
0000 71 : PSECT DECLARATIONS:  
0000 72 :  
00000000 73 : .PSECT \_LIB\$CODE PIC, USR, CON, REL, LCL, SHR, -  
0000 74 : EXE, RD, NOWRT, LONG  
0000 75 :

0000 77 .SBTTL LIB\$CALLG - Execute CALLG instruction  
 0000 78 ++  
 0000 79 FUNCTIONAL DESCRIPTION:  
 0000 80 LIB\$CALLG makes the VAX CALLG instruction available as  
 0000 81 a callable procedure. It calls a procedure with an  
 0000 82 argument list specified as an array.  
 0000 83  
 0000 84 For more information, see the VAX-11 Architecture Handbook.  
 0000 85  
 0000 86  
 0000 87 CALLING SEQUENCE:  
 0000 88  
 0000 89 status.wx.v = LIB\$CALLG (arg\_list.rl.ra, procedure.fzem.r)  
 0000 90  
 0000 91 FORMAL PARAMETERS:  
 0000 92 00000004 93 arg\_list = 4 ; An array of longwords containing the argument  
 0000 94 ; list for the called procedure. Passed by  
 0000 95 ; reference. The first byte of the first  
 0000 96 ; longword must contain the count of longwords  
 0000 97 ; to follow; the remaining three bytes of the  
 0000 98 ; first longword must be zero.  
 0000 99 00000008 100 procedure = 8 ; The entry mask of the procedure to call.  
 0000 101 ; Passed by reference.  
 0000 102  
 0000 103 ; IMPLICIT INPUTS:  
 0000 104 0000 105 The caller's PSW bits FU, IV and DV are inherited for the call  
 0000 106 to the specified procedure.  
 0000 107  
 0000 108 0000 109 IMPLICIT OUTPUTS:  
 0000 110 0000 111 NONE  
 0000 112  
 0000 113 0000 114 FUNCTION VALUE:  
 0000 115 The contents of registers R0 and R1 returned by the called procedure  
 0000 116 are returned unchanged to the caller of LIB\$CALLG. Therefore, the  
 0000 117 function value of LIB\$CALLG is the same as that of the called function.  
 0000 118  
 0000 119 SIDE EFFECTS:  
 0000 120 0000 121 NONE  
 0000 122  
 0000 123 --  
 0000 124 0000 125 .ENTRY LIB\$CALLG, "M<>" ; Entry point  
 0000 126 0002 127 BICW3 #^C<PSLSM\_IV!PSLSM\_DV!PSLSM\_FU>, SFSW SAVE PSW(FP), -  
 0000 128 R0 ; Put in R0 the caller's PSW  
 0000 129 ; with only the IV, DV and FU  
 0000 130 ; bits copied.  
 0000 131 0009 131 BISPSW R0 ; Set those bits in our PSW  
 0000 132 CALLG @arg\_list(AP), @procedure(AP) ; Call procedure  
 0000 133 0010 133 RET ; return to caller

50 04 AD FF1F BF AB 0002 127  
 08 BC 04 BC 50 B8 0009 131  
 04 0008 132  
 04 0010 133

LIB\$CALLG  
1-002

- Execute CALLG instruction  
LIB\$CALLG - Execute CALLG instruction

C 15

15-SEP-1984 23:48:59 VAX/VMS Macro V04-00  
6-SEP-1984 11:03:47 [LIBRTL.SRC]LIBCALLG.MAR;1

Page 4  
(3)

0011 134  
0011 135

.END

; End of module LIB\$CALLG

LIB\$CALLG  
Symbol table

- Execute CALLG instruction

D 15

15-SEP-1984 23:48:59 VAX/VMS Macro V04-00  
6-SEP-1984 11:03:47 [LIBRTL.SRC]LIBCALLG.MAR;1

Page 5  
(3)

ARG\_LIST = 00000004  
LIB\$CALLG = 00000000 RG 02  
PROCEDURE = 00000008  
PSLSM\_DV = 00000080  
PSLSM\_FU = 00000040  
PSLSM\_IV = 00000020  
SF\$W\_SAVE\_PSW = 00000004

+-----+  
! Psect synopsis !  
+-----+

PSECT name

PSECT name	Allocation	PSECT No.	Attributes	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE		
ABS	00000000	( 0.)	00 ( 0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE
\$ABSS	00000000	( 0.)	01 ( 1.)	NOPIC	USR	CON	ABS	LCL	NOSHR	EXE	RD	WRT	NOVEC	BYTE
_LIB\$CODE	00000011	( 17.)	02 ( 2.)	PIC	USR	CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	LONG

+-----+  
! Performance indicators !  
+-----+

Phase

Phase	Page faults	CPU Time	Elapsed Time
Initialization	30	00:00:00.04	00:00:00.80
Command processing	117	00:00:00.33	00:00:02.85
Pass 1	122	00:00:00.84	00:00:05.76
Symbol table sort	0	00:00:00.03	00:00:00.19
Pass 2	41	00:00:00.26	00:00:01.56
Symbol table output	2	00:00:00.02	00:00:00.15
Psect synopsis output	3	00:00:00.03	00:00:00.31
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	317	00:00:01.56	00:00:11.63

The working set limit was 1050 pages.

5049 bytes (10 pages) of virtual memory were used to buffer the intermediate code.

There were 10 pages of symbol table space allocated to hold 71 non-local and 0 local symbols.

135 source lines were read in Pass 1, producing 12 object records in Pass 2.

9 pages of virtual memory were used to define 8 macros.

+-----+  
! Macro library statistics !  
+-----+

Macro library name

\$\_255\$DUA28:[SYSLIB]STARLET.MLB;2

Macros defined

5

131 GETS were required to define 5 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:\$LIBCALLG/OBJ=OBJ\$:\$LIBCALLG MSRC\$:\$LIBCALLG/UPDATE=(ENH\$:\$LIBCALLG)

0203 AH-BT13A-SE  
VAX/VMS V4.0

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REQ

STRMACROS  
REQ

RTLOOBG  
REQ

RTLMACMAR  
MAR

LIBASCEBC  
LIS

LIBASTINP  
LIS

LIBBINTRE  
LIS

LIBCHAR  
LIS

LIBDEF  
FOR

LIBANASTR  
LIS

LIBASNMBX  
LIS

LIBBBCCI  
LIS

LIBABURCA  
LIS

LIBADDX  
LIS

LIBASCTIM  
LIS

LIBATTACH  
LIS

LIBCALLG  
LIS

SIGDEF  
FOR

LIBTABMAC  
MAR

LIBBSSI  
LIS

LIBCLICAL  
LIS

STRNPK  
REQ

LIBA2EREU  
LIS

LIBADOP  
LIS

LIBATTACH  
LIS